

**SELF-REPAIRING INTEGRATED CIRCUIT  
AND METHOD OF OPERATING THE SAME**

**ABSTRACT OF THE DISCLOSURE**

An integrated circuit (IC) and methods of manufacturing and operating ICs. In one embodiment, the IC includes: (1) a plurality of interchangeable hard macrocells, (2) at least one programmable logic block (PLB), (3) a bus intercoupling said plurality and said at least one programmable logic block and (4) a self-repair program, associated with said at least one programmable logic block, that causes said PLB to test at least some of said plurality and place at least a functioning one of said plurality into an operational status.